

REMARKS

Claims 1-9, 11-26, and 44 are pending in this application. Claims 10 and 27-43 were previously canceled without prejudice. Reconsideration of the pending claims is respectfully requested in view of the following remarks.

Rejections Under 35 U.S.C. § 103

Claims 1, 2, 5, 7-11, 13-16, 23, and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammar et al. (U.S. Patent No. 4,786,446) in view of Poler (U.S. Patent No. 4,402,579), and evidenced by Sakurada (Publication: "Polyvinyl Alcohol Fibers," CRC Press; 1985). Applicant respectfully traverses.

Claim 1 is directed to a method of producing a plurality of soft contact lenses comprising:

- A. providing a sheet of solid, substantially dry material;
- B. forming said material into a plurality of shaped lens blanks through controlled application of physical force to the material; and
- C. hydrating said plurality of shaped lens blanks;

wherein at least immediately subsequently to said physical forming step B, said plurality of shaped lens blanks remain at least partially attached to the sheet of material.

With respect to claim 1, the Examiner admitted that Hammar does not teach forming a plurality of blanks on the sheet, or that the blanks remain attached to the sheet subsequent to formation. The Examiner cited Poler for teaching the forming of a lens material into a plurality of shaped lens blanks through controlled application of physical force to the material, and that at least immediately subsequently to the physical forming step, the plurality of shaped lens blanks remain at least partially attached to the sheet of material for the benefit of easing mass production handling of the shaped lens blanks. (Office Action, pp. 2-3). Applicants respectfully disagree with the Examiner's interpretation of Poler for reasons discussed hereafter.

Initially, Applicant submits that there is no teaching, suggestion, or motivation for combining the teachings of the cited references. Poler discloses lenses made of optical-quality glass or transparent plastic which is inert to body fluids, that is, “hard” contact lenses (see Abstract), whereas Hammar relates to shaped hydrogel contact lenses, that is, “soft” contact lenses. It is well known that “hard” and “soft” contact lenses are constructed of very different types of materials and require completely different manufacturing processes.

Hammar discloses a physical application of force to form soft contact lenses via a thermoforming process whereby soft polymer material is pressed in a mold. It is not generally possible to separate a sheet of glass or plastic material for a hard contact lens into a plurality of discreet lenses by such techniques. Thus, a person of ordinary skill in the art would not look to a reference relating to the manufacture of hard contact lenses (Poler) when looking to improve methods of preparing soft contact lenses. As such, those skilled in the art would have no technological motivation to combine the teachings of Poler and Hammar.

The hard contact lenses of Poler have a thin haptic structure 11 surrounding the optical lens element 10, which are integral with each other and form the entire contact lens structure. (*See Fig. 1, and col. 2, lines 35-43*). It is possible to create lens specimens having a central optical lens element surrounded by a thin haptic structure of the type disclosed in Poler with hard contact lenses due to the physical strength of the materials used. However, it is not workable to use a thin haptic carrier zone of the type described in Poler with a soft contact lens of the type disclosed in Hammar due to the lower mechanical strength of soft hydrogel materials. Thus, this teaching of Poler is unsuitable for use with the soft contact lenses of Hammar.

As the Examiner knows, if a proposed modification would render a prior art device being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. (MPEP 2143.01). Therefore, it would not have been obvious to the person of ordinary skill in the art to apply the haptic structures described in Poler to the soft contact lenses disclosed in Hammar, as such a

modification of the soft contact lenses in Hammar would render the lenses unsatisfactory for their intended purpose.

Furthermore, even if the teachings of the cited references are combined as proposed by the Examiner, not all the limitations of claim 1 are met. In particular, there is no teaching or suggestion in the cited references of forming the “material into a plurality of shaped lens blanks through controlled application of physical force to the material” and that at least immediately subsequently to the physical forming step, the “plurality of shaped lens blanks remain at least partially attached to the sheet of material” as recited in claim 1.

Although Poler discloses that a hard lens can be finished by pressing the material within a die to shape it (col. 4, lines 48-57, Fig. 5 and Fig. 12), there is no disclosure in Poler of forming the material into a plurality of blanks by the controlled application of physical force, as that step is performed via an etching technique. As set out in Poler, etching is an erosion technique whereby material is removed by plasma etching, ion milling, or chemical etching. Such techniques are capable of eroding the hard plastic and glass materials of the lenses as disclosed in Poler (col. 7, lines 26-31). The person of ordinary skill in the art would not recognize these techniques as involving the controlled application of physical force or that the physical application of force is a suitable equivalent technique. For the sake of completeness, it is pointed out that ion milling is a technique whereby a beam of electrons or other ions is used to ablate a surface by abstracting individual atoms. It is respectfully submitted that the person of ordinary skill in the art would not consider a beam of ions to be a process involving the “controlled application of physical force” as used in the field in question.

Thus, Poler does not teach forming a material into “a plurality of shaped lens blanks through controlled application of physical force to the material” as recited in claim 1.

As described above, the hard contact lenses of Poler have a thin haptic structure surrounding the optical lens element, which supports the lens element. As such, the haptic structure is an essential part of the contact lens and together with the lens element

form the complete contact lens. The Examiner appears to be of the opinion that the haptic structures are a part of a sheet to which lenses are attached (See Final Office Action, p. 12, par. 51). However, it is respectfully submitted that the teaching of Poler as a whole does not support such an interpretation. Poler describes a contact lens assembly in which individual lens specimens are edge-interconnected (see col. 4, lines 18-26, and Fig. 10), with the haptic structures being an integral part of the lenses. Thus, the lenses of Poler are attached to one another and not to a sheet.

Consequently, Poler does not teach that a “plurality of shaped lens blanks remain at least partially attached to the sheet of material” as recited in claim 1.

Additionally, adding the teachings of Sakurada does not cure the deficiencies of Hammar and Poler.

Accordingly, claim 1 would not have been obvious over the cited references.

Since claims 2, 5, 7-11, 13-16, 23, and 24 depend from claim 1 and thus include all the limitations of claim 1, these dependent claims would also not have been obvious over the cited references for at least the same reasons as claim 1.

Applicant therefore respectfully requests that the rejection of claims 1, 2, 5, 7-11, 13-16, 23, and 24 under 35 U.S.C. § 103(a) be withdrawn.

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammar in view of Poler, and further in view of Hassan et al. (Publication: *Water Solubility Characteristics of Poly(Vinyl Alcohol) and Gel Prepared By Freezing/Thawing Processes, Water Soluble Polymers*; Plenum Press, 1998). Applicant respectfully traverses.

Claims 3 and 4 depend from claim 1 and thus include all the limitations of claim 1. As discussed previously, there is no teaching or suggestion in Hammar or Poler of all the limitations recited in claim 1. Adding the teachings of Hassan as proposed by the Examiner does not overcome the deficiencies of Hammar and Poler.

As a result, claims 3 and 4 would not have been obvious over Hammar and Poler in view of Hassan.

Applicant therefore respectfully requests that the rejection of claims 3 and 4 under 35 U.S.C. § 103(a) be withdrawn.

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammar in view of Poler, and further in view of Iwaseya et al. (Publication: *Effect of Degree of Saponification on Properties of Films Obtained from PVA/NaCl/H₂O*, J Mater Sci 41 (2006)). Applicant respectfully traverses.

Claim 6 depends from claim 1 and thus includes all the limitations of claim 1. As discussed previously, there is no teaching or suggestion in Hammar or Poler of all the limitations recited in claim 1. Adding the teachings of Iwaseya as proposed by the Examiner does not overcome the deficiencies of Hammar and Poler.

As a result, claim 6 would not have been obvious over Hammar and Poler in view of Iwaseya.

Applicant therefore respectfully requests that the rejection of claim 6 under 35 U.S.C. § 103(a) be withdrawn.

Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammar in view of Poler, and further in view of Miller et al. (U.S. Patent No. 4,652,721). Applicant respectfully traverses.

Claim 12 depends from claim 1 and thus includes all the limitations of claim 1. As discussed previously, there is no teaching or suggestion in Hammar or Poler of all the limitations recited in claim 1. Adding the teachings of Miller as proposed by the Examiner does not overcome the deficiencies of Hammar and Poler.

As a result, claim 12 would not have been obvious over Hammar and Poler in view of Miller.

Applicant therefore respectfully requests that the rejection of claim 12 under 35 U.S.C. § 103(a) be withdrawn.

Claims 17 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammar in view of Poler, and further in view of LeVa (U.S. Patent No. 5,166,528). Applicant respectfully traverses.

Claims 17 and 18 depend from claim 1 and thus include all the limitations of claim 1. As discussed previously, there is no teaching or suggestion in Hammar or Poler of all the limitations recited in claim 1. Adding the teachings of LeVa as proposed by the Examiner does not overcome the deficiencies of Hammar and Poler.

Hence, claims 17 and 18 would not have been obvious over Hammar and Poler in view of LeVa.

Applicant therefore respectfully requests that the rejection of claims 17 and 18 under 35 U.S.C. § 103(a) be withdrawn.

Claim 19 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammar in view of Poler, and further in view of Voss et al. (U.S. Patent Application Pub. No. 2004/0112008). Applicant respectfully traverses.

Claim 19 depends from claim 1 and thus includes all the limitations of claim 1. As discussed previously, there is no teaching or suggestion in Hammar or Poler of all the limitations recited in claim 1. Adding the teachings of Voss as proposed by the Examiner does not overcome the deficiencies of Hammar and Poler.

As a result, claim 19 would not have been obvious over Hammar and Poler in view of Voss.

Applicant therefore respectfully requests that the rejection of claim 19 under 35 U.S.C. § 103(a) be withdrawn.

Claims 20 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammar in view of Poler and Voss, and further in view of Jux (U.S. Patent No. 6,474,465). Applicant respectfully traverses.

Claims 20 and 21 depend from claim 1 and thus include all the limitations of claim 1. As discussed previously, there is no teaching or suggestion in Hammar or Poler of all the limitations recited in claim 1. Adding the teachings of Voss and Jux as proposed by the Examiner does not overcome the deficiencies of Hammar and Poler.

Thus, claims 20 and 21 would not have been obvious over Hammar in view of Poler and Voss, and further in view of Jux.

Applicant therefore respectfully requests that the rejection of claims 20 and 21 under 35 U.S.C. § 103(a) be withdrawn.

Claims 22 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammar in view of Poler, and further in view of Herbrechtsmeier et al. (U.S. Patent No. 6,113,817). Applicant respectfully traverses.

Claims 22 and 44 depend from claim 1 and thus include all the limitations of claim 1. As discussed previously, there is no teaching or suggestion in Hammar or Poler of all the limitations recited in claim 1. Adding the teachings of Herbrechtsmeier as proposed by the Examiner does not overcome the deficiencies of Hammar and Poler.

As a result, claims 22 and 44 would not have been obvious over Hammar and Poler in view of Herbrechtsmeier.

Applicant therefore respectfully requests that the rejection of claims 22 and 44 under 35 U.S.C. § 103(a) be withdrawn.

Claims 25 and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammar in view of Poler, and further in view of Biel et al. (U.S. Patent Application Pub. No. 2002/0163638). Applicant respectfully traverses.

Claims 25 and 26 depend from claim 1 and thus include all the limitations of claim 1. As discussed previously, there is no teaching or suggestion in Hammar or Poler of all the limitations recited in claim 1. Adding the teachings of Biel as proposed by the Examiner does not overcome the deficiencies of Hammar and Poler.

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Hence, claims 25 and 26 would not have been obvious over Hammar and Poler in view of Biel.

Applicant therefore respectfully requests that the rejection of claims 25 and 26 under 35 U.S.C. § 103(a) be withdrawn.

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CONCLUSION

Applicant respectfully submits that all of the pending claims are in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at the telephone number listed below.

Respectfully submitted,

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